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**An evaluation of 'Feed the Need' and other food assistance programmes on
dietary intake and classroom success in a low decile school in South
Auckland, New Zealand.**

A thesis presented in partial fulfilment of the requirements for the degree of

Masters of Science
in
Nutrition and Dietetics

at Massey University, Albany
New Zealand

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2016

Abstract

Background: Feed the Need (FTN) is a charitable organisation that provides lunches to low decile schools during winter. Limited literature investigates the effects of such programmes on dietary intake and classroom success in New Zealand children.

Aim: To assist Manurewa South School in demonstrating the effects of FTN on dietary intake at school, and classroom success in year five and six students.

Methods: Self-administered food records were completed by 82 year five and six students from Manurewa South School during one week of FTN (i.e. 'FTN week') and again two months after FTN's conclusion (i.e. 'control week'). Mean intake of energy and all macronutrients were estimated in both weeks, and compared to school-day requirements (40% of the Nutrient Reference Values). Meals offered to students by FTN were also analysed against school-day requirements. Key food sources were identified and intake was compared between the FTN and control weeks. Furthermore, attendance and classroom behaviour were analysed using the 'Positive Behaviour 4 Learning' screening initiative. Finally, focus groups were undertaken with three staff and six student representatives to understand perceptions of food assistance programmes available.

Results: During the FTN week students consumed more energy, protein, carbohydrate, fat, saturated fat and dietary fibre ($p < 0.05$). School-day dietary fibre requirements were not met during the control week but were achieved during FTN by girls (9.13 ± 7.39 g/day). During both weeks consumption of carbohydrate, protein and saturated fat exceeded school-day recommendations. FTN meals exceeded school-day recommendations for carbohydrate, protein and saturated fat. Sources of food included the dairy, home, school, FTN and 'other'. No difference in energy intake sourced from the home or dairy was observed between the weeks ($p > 0.05$). Attendance rates and behaviour did not differ between the two weeks ($p > 0.05$). Focus groups demonstrated concerns over the tenure and cultural appropriateness of FTN.

Conclusions: FTN increased energy, macronutrient, and dietary fibre intakes in students. Nutritional adequacy of FTN meals should be moderated, in particular the saturated fat content. Guidelines should be established to ensure nutritionally adequate meals are served by programmes like FTN.

Attendance and behaviour remained unaffected in this study. Longitudinal studies are required to determine the effects of FTN on attendance rates in school.

Key Words: Feed the Need, food assistance programmes, food insecurity, nutrition, public health, South Auckland, New Zealand

Acknowledgments

First and foremost, I would like to acknowledge my wonderful family for the support and guidance they have provided me throughout this journey. To Mum, Dad, Kerry and Rae, thank you for believing in me and for giving me the confidence to know that I am unstoppable and unbreakable when I put my mind to something.

A special mention goes to Elise, Kerry and Dad for tirelessly reviewing my work. I appreciate the time and energy you have sacrificed for me.

To Todd, thank you for being there whenever times were tough and for dealing with my weekly mood swings, and breakdowns. I am confident that I would not have made it through these past two years without your support, so thank you.

To my brother Chris and my beautiful friends, I am sorry I have been MIA for the past two years. Thank you for your understanding.

To my classmates, in particular Lisa and Vicki. We did it! I don't know how I possibly would have managed this without you both. Your friendship has helped to keep me slightly sane throughout this process.

A special mention goes to Lisa for helping me with my statistical analyses. In times of frustration and confusion, you were my rock.

To my research partner and friend Nitasha, I am so lucky to have had your support throughout this process. Your knowledge and positive attitude has been amazing.

To the staff and students from Manurewa South School, your hospitality and co-operation with data collection is duly acknowledged.

Lastly, to my supervisors Dr Carol Wham and Professor Bernhard Breier, thank you for sharing your knowledge and experience with me. This process has helped me to grow academically and also personally. Your passion for nutrition and public health is to be commended.

For Nana Doreen & Poppa. I'm sorry you never got to read my work; I know you both would have been incredibly proud. Thank you for your inspiration, and introducing me to the wonderful world of food.

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Abbreviations

AI	Adequate Intake
AMDR	Acceptable Macronutrient Distribution Range
BMI	Body Mass Index
CNS	Children’s Nutrition Survey
EAR	Estimated Average Requirement
ECLS-K	Early Childhood Longitudinal Study – Kindergarten
EER	Estimated Energy Requirement
FAP	Food Assistance Programme
FG	Focus Group
FR	Food Record
FSM	Free School Meal
FTN	Feed the Need
KS1	Key Stage 1
KS2	Key Stage 2
NAGS	National Administration Guidelines
NRV	Nutrient Reference Value
NSC of Dietary Behaviours	The National Survey of Children and Young People’s Physical Activity and Dietary Behaviours in New Zealand
NSLP	National School Lunch Programme
NZEO	New Zealand European and Other
PB4L	Positive Behaviour 4 Learning
SBP	School Breakfast Programme
SES	Socioeconomic Status
SSB	Sugar Sweetened Beverage
UK	United Kingdom
USA	United States of America
WHO	World Health Organisation

“Overcoming poverty is not a gesture of charity. It is the protection of a fundamental human right, the right to dignity and a decent life” (Mandela, 2005, para. 12)